

Notice of Allowability

Application No.

09/918,001

Examiner

Ronald D Hartman Jr.

Applicant(s)

BOELKENS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communications filed on 7/20/2004.
2. ☒ The allowed claim(s) is/are 1, 3-4, 6-9, 12 and 15-17 (renumbered as 1-11).
3. ☒ The drawings filed on 20 July 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Claims 1, 3-4, 6-9, 12 and 15-17 are presented for further examination.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims:

Claim 6, line 1, delete "2" and replace with -- 1 --.

Claim 8, lines 2-3, change "relating to the relevant object oriented function can be carried out when a object oriented" to -- relating to a relevant object oriented function can be carried out when an object oriented --.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

As per claims 1, 3-4, and 6-9, specifically independent claim 1, the prior art of record fails to teach or adequately suggest a method for generating software for an open drive regulator, wherein the open drive regulator has been interpreted in light of the applicant's disclosure [0001], which states that the open drive regulator is a converter system for use for regulating and or controlling drive functions.

The examiner was not able to find a valid reference that taught a converter system, such as the type disclosed by the applicant (a SIMODRIVE 611), which utilizes object oriented functions which allow a user the ability to program the drive regulator at the drive regulator itself. This ability is not taught by the prior art of record, nor is it a feature that would have been obvious to one of ordinary skill in the art at the time the

invention was made since no teaching could be found of using object oriented functions within this type of device (drive regulator).

Therefore, since the examiner was not able to find a proper teaching of an "intelligent drive", as disclosed by the applicant [0002], whereby the drive utilizes object oriented functions so as to allow a programmer the ability to customize the software which the drive regulator will use to implement the functions of the drive regulator, claims 1, 3-4 and 6-9 are believed to be allowable over the prior art of record.

Furthermore, the prior art of record fails to teach further features of claim 1 including the use of two sets of object oriented functions, one set for customer specific functions and one set for generic functions, whereby the system programmer utilizes both sets for forming the control instructions and or regulating functions for the drive regulator by selecting individual functions, instantiating the selected functions and then compiling the functions to form the software for the open drive regulator, in combination with the other claimed features and or limitations as claimed by the claimed invention.

As per claims 12 and 15-17, the same reasons for allowance as applied to claim 1, is equally applied herein. Furthermore, it is noted that independent claim 12 also sets forth a feature wherein the open drive regulator comprises a micro-controller which is used by the open drive regulator for performing the actual software generation of the code that will be used by the open drive regulator. In other words, the drive regulator's micro-controller not only is responsible for forming the software, but it is also responsible for running the software that it has created, so that the functions of the drive regulator may be changed in accordance with the needs and or desires of a user within the context of a specific application for the drive regulator. These features, in combination with the other claimed features and or limitations are not taught or adequately suggested by the prior art for record, and for at least these reasons, claims 12 and 15-17 are believed to be allowable over the prior art.

The closest available art was issued to Hughes, U.S. Patent No. 6,345,382, which discloses a run-time customization for objected oriented programming

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techniques. This system and method is silent with respect to forming software for an open drive regulator and this system and method is also silent with respect to creating two sets of objects, one set for customer specific objects and the other set for general object oriented functions, whereby user selects specific functions for instantiation and compilation so that an executable code may be created for running the open drive regulator.

The next closest available prior art was issued to Thomas, U.S. Patent No. 6,490,719 in which a system and method for executing flexible computer programs comprised of components is disclosed. However, this system also fails to teach the aforementioned features with respect to Hughes above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is 703-308-7001, and after October 12, 2004, (571) 272 - 3684. The examiner can normally be reached on Mon. - Fri., 11:30 am - 8:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179, and starting October 12, 2004, at (571) 272 - 3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.

Examiner

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A handwritten signature in black ink, appearing to read 'Anthony Knight', is written over the printed name.

Anthony Knight
Supervisory Patent Examiner
Group 3600